

Application No.: 10/605,624

Docket No.: 22137-00003-US1

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

1. (Currently amended) A non-transverse propulsion drive arrangement for a vehicle, the non-transverse arrangement comprising:
an engine;

a transfer case having an input shaft coupled to an output shaft of the engine at one end of the engine, wherein the transfer case only has a single output shaft;

a transmission having an input shaft coupled to ~~an~~ the single output shaft of the transfer case;

a drive shaft coupled to ~~an~~ a single output shaft of the transmission; and
~~means for propelling the vehicle~~ a differential coupled to the ~~drive~~ single output shaft of the transmission,

wherein the engine is located at a position which is laterally offset from and adjacent to a side of the transmission so as to be essentially parallel with the transmission along respective longitudinal axes thereof,

wherein the input shaft and output shaft of the transfer case are both located on a same side of the transfer case corresponding to the one end of the engine, ~~and~~

wherein each of the respective longitudinal axes of the engine and transmission are aligned with a longitudinal axis of the vehicle in a non-transverse manner, and

wherein both the engine and transmission are arranged behind the axle and differential in a rear-mounted engine configuration.

2. (Currently amended) The propulsion drive arrangement of claim 1,
~~wherein the means for propelling the vehicle includes~~ further comprising a set of

Application No.: 10/605,624

Docket No.: 22137-00003-US1

wheels attached to an axle coupled to the single transmission drive shaft through a the differential.

3. (Currently amended) A non-transverse propulsion drive arrangement for a vehicle, the non-transverse arrangement comprising:

an engine;

a transfer case having an input shaft coupled to an output shaft of the engine at one end of the engine, wherein the transfer case only has a single output shaft;

a transmission having an input shaft coupled to ~~an~~ the single output shaft of the transfer case;

a single drive shaft coupled to ~~an~~ a single output shaft of the transmission; and coupled to the single drive shaft, means for propelling the vehicle ~~coupled to the drive shaft~~,

wherein the engine is located at a position which is laterally offset from and adjacent to a side of the transmission so as to be essentially parallel with the transmission along respective longitudinal axes thereof,

wherein the input shaft and single output shaft of the transfer case are both located on a same side of the transfer case corresponding to the one end of the engine, ~~and~~ wherein each of the respective longitudinal axes of the engine and transmission are aligned with a longitudinal axis of the vehicle in a non-transverse manner; and

wherein the means for propelling the vehicle ~~includes one or more propellers coupled to the transmission drive shaft through one or more associated propeller shafts~~ comprises a propeller coupled to the single drive shaft.

4. (Canceled).

Application No.: 10/605,624

Docket No.: 22137-00003-US1

5. (Original) The propulsion drive arrangement of claim 2, wherein a moment arm of the engine and transmission arrangement is less than a distance between the differential and the transfer case.

6. (Previously presented) A non-transverse propulsion drive arrangement for a vehicle, the non-transverse arrangement comprising:
an engine;
a transfer case having an input shaft coupled to an output shaft of the engine at one end of the engine, wherein the transfer case only has a single output shaft;
a transmission having an input shaft coupled to ~~an~~ the single output shaft of the transfer case;
a single drive shaft coupled to ~~an~~ the single output shaft of the transmission; and
means for propelling the vehicle coupled to the ~~drive~~ single output shaft of the transmission,
wherein the engine is located at a position which is laterally offset from and adjacent to a side of the transmission so as to be essentially parallel with the transmission along respective longitudinal axes thereof, and
wherein the input shaft and the single output shaft of the transfer case are both located on a same side of the transfer case corresponding to the one end of the engine,
wherein the means for propelling the vehicle ~~includes~~ comprises a set of wheels attached to an axle coupled to the ~~transmission~~ single drive shaft through a differential, and
wherein each of the respective longitudinal axes of the engine and transmission are aligned with a longitudinal axis of the vehicle in a non-transverse manner, and

Application No.: 10/605,624

Docket No.: 22137-00003-US1

wherein both the engine and transmission are arranged in front of the axle and differential in a mid-mounted engine configuration.

7. (Currently amended) A method of providing propulsion for a vehicle, the method comprising:

arranging an engine and a transmission to be side-by-side in a non-transverse manner with respect to a longitudinal axis of the vehicle so that respective output shafts are essentially parallel and displaced from each other and aligned along the longitudinal axis of the vehicle;

providing a torque output on an engine output shaft;

reversing a direction of the torque output from the engine output shaft;

coupling the reversed torque output to a transmission input; ~~and~~

~~applying an output of the a single transmission output to one or more drive elements of the vehicle~~ a differential having a single input; and

applying two differential outputs to two associated drive elements,

wherein both the engine and transmission are arranged behind the one or more drive elements of the vehicle in a rear-mounted engine configuration.

8. (Currently amended) The method of claim 7, wherein the ~~applying step includes applying two differential outputs to two associated drive elements~~ comprises applying the transmission output two differential outputs to a set of wheels.

9. (Currently amended) A method of providing propulsion for a vehicle, the method comprising:

arranging an engine and a transmission to be side-by-side in a non-transverse manner with respect to a longitudinal axis of the vehicle so that respective output

Application No.: 10/605,624

Docket No.: 22137-00003-US1

shafts are essentially parallel and displaced from each other and aligned along the longitudinal axis of the vehicle;

providing a torque output on an engine output shaft;

reversing a direction of the torque output from the engine output shaft;

coupling the reversed torque output to a transmission input; and

~~applying an output of the transmission to one or more drive elements of the vehicle,~~

~~wherein the applying step includes applying the transmission output to~~
coupling a single transmission output to a propeller.

10. (Previously presented) The method of claim 7, further comprising ensuring that a moment arm of the engine and transmission arrangement is within a respective length of both the engine and the transmission.

11. (Previously presented) The propulsion drive arrangement of claim 1, wherein a front end of the engine is higher than a rear end of the engine so as to provide an angle between the engine output shaft and an input shaft of the transfer case.